

## ACADEMIES AND SOCIETIES.

### Indian Academy of Sciences :

June 1937.—SECTION A.—R. S. KRISHNAN : *Dispersion of Depolarisation of Light-Scattering in Colloids—Part IV. Iodine, Graphite, Stearic Acid, Vanadium Pentoxide, Arsenic Trisulphide and Ferric Hydroxide Sols.*—From a study of the absorption coefficients and the dispersion of depolarisation, conclusions are drawn regarding size and shape of the colloidal particles. F. C. AULUCK AND S. CHOWLA : *A Property of Numbers.* S. CHOWLA : *On Some Infinite Series Involving Arithmetical Functions.* S. CHOWLA : *On Some Infinite Series Involving Arithmetical Functions (II).* F. C. AULUCK : *A Generalization of the Simson Line.* B. R. SETH : *On the Sufficiency of the Consistency Equations.* B. K. SINGH AND M. R. SUD : *Studies in the Substituted Quaternary Azonium Compounds—Part V. The Molecular State of Phenylmethylazonium, Phenylmethylethylazonium, Phenyl-diethylazonium, Phenylmethylbenzylazonium, Phenylpropylbenzylazonium Iodides in Dilute Solution.*—The molecular state is derived from molecular weight determinations carried out on dilute aqueous and alcoholic solutions by the boiling point method. P. V. KRISHNA IYER : *The Distribution of the Mean of Fisher's  $t^2$  for Samples from a Normal Population.*—Suggestions are put forward for determining the significance of the difference between the means of samples of different sizes. H. S. VENKATARAMIAH : *The Magnetic Susceptibility of Copper Amalgam.*—Addition of even small quantities of copper decreases the diamagnetic susceptibility of mercury considerably. G. R. GOGTE : *Chemistry of  $\beta$ -Aryl Glutaconic Acids—Part III. Condensations with Phenolic Ethers.* S. ZAFARUDDIN AHMED AND R. D. DESAI : *Heterocyclic Compounds—Part II. The Synthesis of Cyclopenteno-(1':2':4:3)-carbostyryl Derivatives.* R. S. KRISHNAN : *Dispersion of Depolarisation of Light-Scattering in Colloids—Part V. Colloidal Dye-Stuffs.*—In the case of dye-stuffs also the depolarisation values attain their maximum value in the region of specific absorption. S. R. SAVUR : *The Use of the Median in Tests of Significance.*—A new test of significances called  $\bar{M}$  test, in which the median is used, is given. The application of this test is quite simple. R. S. KRISHNAN : *Critical Opalescence of Liquid Mixtures.*—Roussset's theory of secondary scattering does not fully explain the finite value of depolarisation of the critical opalescence. The formation of clusters must also be considered. Experimental evidence shows that these clusters exist even at temperatures considerably removed from critical solution temperature. R. PADMANABHAN : *The Fluorescence of Acetone Vapour.*—There are a number of diffuse bands superposed on a continuous spectrum. A similar fine structure is also observed for methyl ethyl ketone.

June 1937. SECTION B.—DONTCHO KOSTOFF : *Chromosome Behaviour in Triticum Hybrids and Allied Genera—I. Interspecific Hybrids with Triticum Timopheevi.*—Cytological study of the hybrids from a number of cross combinations indicates that the chromosomes of A and B genomes of *Tr. Timopheevi* are not homologous with the

chromosomes of S genomes of *Secale cereale*. In other words, genomes A and B are not homologous with genom S. DONTCHO KOSTOFF : *Studies on Polyploid Plants—XVI. Nicotiana rustica  $\times$  Nicotiana tabacum Amphidiploid.*—The method of centrifuging germinated seeds has been applied successfully for inducing chromosome doubling in hybrid seedlings in order to produce fertile amphidiploid plants from sterile hybrids of *N. Rustica* and *N. tabacum*. DONTCHO KOSTOFF : *Studies on Polyploid Plants—XVII. Nicotiana multivalvis ( $2n = 48$ )  $\times$  Nicotiana suaveolens ( $2n = 32$ ) Amphidiploid ( $2n = 80$ ).*—Under the influence of high temperature, hybrids between *N. multivalvis* and *N. suaveolens* which are normally self-sterile and form abortive pollen, produce amphidiploid *N. multivalvis  $\times$  N. suaveolens* which sets a large amount of seed. The amphidiploids were more robust than  $F_1$ -hybrids and the flowers were slightly larger. R. GOPALA AIYAR AND N. KESAVA PANIKKAR : *Observations on the Swarming Habits and Lunar Periodicity of Platynereis sp. from the Madras Harbour.*—The Heteronereids are described. S. JONES : *Observations on the Breeding Habits and Development of Certain Brackish Water Fishes of Adyar, Madras.*—The breeding habits and development of *Acentrogobius viridipunctatus*, *Petroscirtes bhattacharyae* and *Boleophthalmus boddarti* are made known for the first time. B. RAMA RAO AND L. RAMA RAO : *On "Bidalotite", a New Orthorhombic Pyroxene derived from Cordierite.*—A new type of orthorhombic pyroxene which is distinct from the known members of the enstatite hypersthene series which must therefore be recognised as a new mineral, has been described. M. S. RANDHAWA : *Genus Zygnemopsis in Northern India.* R. D. VIDYARTHI : *New Arian Trematodes of the Subfamily Cotylurini Dubois 1936, (Family Strigeidae, Railliet 1910.—Apatemon indicus n. sp., Apatemon casarcus n. sp., Pseudostrigea sarcogypnis n. sp., and Cotylurus orientalis sp. nov., have been described. HUKAM CHAND : Study of the Fungus Flora of the Lahore Soils.*—About 20 species of fungi have been recorded of which some are new.

### Indian Chemical Society:

March 1937.—TEJENDRA NATH GHOSH : *Quinoline Derivatives—Part II.* NRIPENDRA NATH CHATTERJEE : *Spiro-Compounds—Part III. Synthesis of Cyclo-Hexane-spiro-cyclobutane Derivatives by the Application of the Dieckmann Reaction to Esters of the Tricarballic Series.* SUBODH GOBINDA CHAUDHURY AND JYOTIRMOY SENGUPTA : *On the Nature of the Electric Charge of a Precipitate formed in Presence of an Excess of either of its Constituent Ions—Part I.* RAM NATH MISRA AND SIKHIBHUSHAN DUTT : *Chemical Examination of the Seeds of Cichorium intybus Linn. Constituents of the Oil from the Seeds.* B. B. DEY AND (MISS) P. LAKSHMI KANTAM : *Studies in the Cotarine Series—Part IX. Attempts to Synthesise Alkaloids of the Cryptopine Types.* ATMA RAM AND N. R. DHAR : *Photopolymerisation of Formaldehyde to Reducing Sugars in vitro.* PHULDEO

SAHAY VARMA AND M. KRISHNAMURTI: *Halogenation—Part XVII. Bromination and Iodination of Diphenyl.* PHULDEO SAHAY VARMA, VISHWANATH SAHAY AND B. RAM SUBRAMONIUM: *Halogenation—Part XVIII. Halogenation of Ethylbenzene.* K. S. GURURAJA DOSS: *Interpretation of Adhesion Tension Data.* SHRIDHAR SARVOTTAM JOSHI AND K. RAMA DAS: *Studies in the Coagulation of Colloids—Part XVII. The Anomalous Coagulative Power of Aqueous Mercury Chloride.* K. MADHUSUDANAN PANDALAI: *A Note on the Constitution of Formic Acid.*

April 1937.—MATA PRASAD, JAGDISH SHANKAR AND B. H. PEERMOMAHMED: *An X-Ray Investigation of the Crystals of Diphenylene Disulphide (Thianthrene) and Diphenyl Disulphide.* HARENDRA KUMAR ACHARYA: *Properties of Activated Sugar Charcoal Coated with Various Organic Substances—Part II. Adsorption of Acids.* SUSIL KUMAR RAY AND DURGADAS MAJUMDAR: *On the Study of Polyhalides—Part V. The Structure of Polyhalides.* M. GOSWAMI AND A. SHAHA: *Analytical Uses of Nessler's Reagent—Part III. Estimation of Formaldehyde, Pyrogallol, Tannic and Gallic Acids, their Absolute Oxygen Values.* DINES CHANDRA SEN: *Studies in the Camphor Series—Part IV. Synthesis of Thiofenchone and Two Isomeric Bis-thiocamphors and their Derivatives.* NIRMALANANDA PALIT: *A Modification of the Gaureschi Pyridine Synthesis—Part I.* PROMODE BEHARI BHATTACHARYYA: *On the Physico-Chemical Properties of Electrolysed Gels of Silica, Alumina, Ferric Hydroxide and their Mixtures. Cataphoretic Velocity and  $P_h$ —Part III.* HIRENDRA NATH DAS-GUPTA: *Studies in Organo-arsenic Compounds—Part IV. Heterocyclic Ring containing Arsenic.* KEDAR NATH GAIND, ABDUL WAHAB KHAN AND JNANENDRA NATH RAY: *Synthesis of*

*New Local Anaesthetics—Part II.* SISHU GUHA: *Indigoid Vat Dyes of the Isatin Type—Part II. 3-Indole-2'-(6'-methyl)-thionapthos.*

### Society of Biological Chemists (India)

June 26, 1937.—M. T. CHOBE AND H. S. RAO: *Essential Oil from Atlantic monophyllous Lime.* K. V. GIRI: *Stabilization of Calcium Pyrophosphate.* A. KRISHNAMURTHI: *Protein Nitrogen of Malt Extracts.* C. N. SINGH: *Comparison of Methods for the Estimation of Furols in Soils and Plant Materials.* S. S. GUPTA: *Some Aspects of Disease Control in India.*

### Indian Botanical Society

June 1937.—S. R. BOSE: *Cytology of Basidia of Polyporaceae* (President's Address) at the 16th Annual Meeting of the Indian Botanical Society at Hyderabad, January 1937. S. S. GUPTA AND B. N. LAL: *Investigation of Physiological and Chemical Changes accompanying Parous Germination in Mango.* R. H. B. SINGH: *Investigation on  $F_1$  and  $F_2$  Hybrids between *carinata* and *Raphanus sativus*.* T. S. GUPTA: *On the Discovery of the Prothallus of *Colocasia* in India (Preliminary Note).* A. S. GUPTA: *Development of Ovule and Embryo of *Tamarindus indica* Linn.* I. BANERJEE: *On Some Problems of Cytotaxonomy in *Colocasia antiquorum* Schott.* R. E. COOPER: *On the Variation in Floral Parts of *Rondeletia odorata* Linn.*